CIPROFLOXACIN

Indications:
This drug is active against both Gram-positive and Gram-negative bacteria, including salmonella, shigella, campylobacter, Neisseria, and pseudomonas. It has only moderate activity against Gram-positive bacteria such as Streptococcus pneumonia and Enterococcus faecalis. It should not be used for pneumococcal pneumonia. It is also active against chlamydia and some mycobacteria and can be used for respiratory tract infections, urinary tract infections, infections of gastro-intestinal system (including typhoid fever), bone and joint infections, gonorrhea and septicaemia caused by sensitive organisms.

Pharmacological Category:
Fluoroquinolones

Pregnancy:
Pregnancy category: C
Manufacturers advise use only if adequate alternatives are not available.

Lactation:
Amounts too small to be harmful but manufacturer advises avoid.

Side effects:
Common adverse effects are as follow:
1-10%
Nausea (3%), Abdominal pain (2%), Diarrhea (2% adults; 5% children), Increased aminotransferase levels (2%), Vomiting (1% adults; 5% children), Headache (1%), Increased serum creatinine (1%), Rash (2%), Restlessness (1%)
<1%
Acidosis, Allergic reaction, Angina pectoris, Anorexia, Arthralgia, Ataxia, Back pain, Bad taste, Blurred vision, Breast pain, Bronchospasm, Diplopia, Dizziness, Drowsiness, Dysphagia, Dyspnea, Flushing, Foot pain, Hallucinations, Hiccups, Hypertension, Hypotension, Insomnia, Irritability, Joint stiffness, Lethargy, Migraine, Nephritis, Nightmares, Oral candidiasis, Palpitation, Photosensitivity, Polyuria, Syncope, Tachycardia, Tinnitus, Tremor, Urinary retention, Vaginitis

Contraindications:
Black Box Warnings:
Fluoroquinolones have been associated with disabling and potentially irreversible serious adverse reactions that have occurred together including: tendinitis and tendon rupture, peripheral neuropathy, and CNS effects.
Discontinue the drug immediately and avoid use of systemic fluoroquinolones in patients who experience any of these serious adverse reactions.
May exacerbate muscle weakness in patients with myasthenia gravis; avoid fluoroquinolones with known history of myasthenia gravis.
Documented hypersensitivity; concurrent tizanidine administration

Interactions:
Tizanidine, theophylline, drugs known to prolong QT interval (for example, class IA or III antiarrhythmics, tricyclic antidepressants, macrolides, antipsychotics) , oral antidiabetic drugs, phenytoin, cyclosporine, anti-coagulant drugs, methotrexate, ropinirole, clozapaine, NSAIDs, sildenafil, duloxetine, caffeine/xanthine derivatives, zolpidem, probencid

Dose:
Adult:
1) Acute Sinusitis
Mild/moderate: 500 mg PO q12hr
Limitations-of-use: Reserve fluoroquinolones for patients who do not have other available treatment options for acute sinusitis
2) Bone & Joint Infections
Mild/moderate: 500 mg PO q12hr for ≥4-6 weeks
Severe/complicated: 750 mg PO q12hr for ≥4-6 weeks
3) Chronic Bacterial Prostatitis
Indicated for chronic bacterial prostatitis caused by Escherichia coli or Proteus mirabilis
Mild/moderate: 500 mg PO q12hr for 28 days
4) Infectious Diarrhea
Mild/moderate/severe: 500 mg PO q12hr for 5-7 days
5) Intra-abdominal Infections
Complicated: 500 mg PO q12hr for 7-14 days
6)Lower Respiratory Tract Infections
Mild/moderate: 500 mg PO q12hr for 7-14 days
Severe/complicated: 750 mg PO q12hr for 7-14 days
Limitations-of-use: Reserve fluoroquinolones for patients who do not have other available treatment-options for acute bacterial exacerbation of chronic bronchitis.
7) Skin/Skin Structure Infections
Mild/moderate: 500 mg PO q12hr for 7-14 days
Severe/complicated: 750 mg PO q12hr for 7-14 days
8) Urinary Tract Infections
Acute uncomplicated: Immediate-release, 250 mg PO q12hr for 3 days;
Mild/moderate: 250 mg PO q12hr for 7-14 days
Severe/complicated: 500 mg PO q12hr for 7-14 days
Limitations-of-use: Reserve fluoroquinolones for patients who do not have other available treatment options for uncomplicated urinary tract infections
9) Urethral & Cervical Gonococcal Infections
Uncomplicated: 250-500 mg PO once
10)Anthrax Infection
Cutaneous: 500 mg PO q12hr for 60 days
11)Plague
Indication for treatment and prophylaxis of plague due to Yersinia pestis
500-750 mg PO q12hr x14 days

Pediatric:
1) Complicated Urinary Tract Infections or Pyelonephritis
<1 year: Safety and efficacy not established
≥1 year (PO): 10-20 mg/kg q12hr; individual dose not to exceed 750 mg q12hr for 10-21 days
2) Cholera
Single dose: 30 mg/kg PO
Multiple doses: 30 mg/kg/day PO divided q12hr for 3 days
3) Plague
Indication for treatment and prophylaxis of plague due to Yersinia pestis in pediatric patients from birth to 17 years of age
15 mg/kg PO q8-12hr x10-21 days; not to exceed 500 mg/dose
Inhalational Anthrax (Off-label)
4) Postexposure therapy
PO: 15 mg/kg q12hr for 60 days; individual dose not to exceed 500 mg
Change antibiotic to amoxicillin as soon as penicillin susceptibility confirmed
5) Cystic Fibrosis (Off-label)
PO: 40 mg/kg/day divided q12hr; not to exceed 2 g/day

Administration:
Administer Ciprofloxacin at least 2 hours before or 6 hours after magnesium/aluminum antacids; polymeric phosphate binders (for example, sevelamer, lanthanum carbonate) or sucralfate; other highly buffered drugs; or other products containing calcium, iron or zinc.
Concomitant administration of Ciprofloxacin with dairy products (like milk or yogurt) or calcium-fortified juices